TB in Refugees and Immigrants

Dora Marrufo, RN, BSN
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March 17, 2015

TB Nurse Case Management
March 17-19, 2015
San Antonio, Texas

Dora Marrufo, RN, BSN & Delphina Sánchez, MA have the following disclosures to make:

- No conflict of interests
- No relevant financial relationships with any commercial companies pertaining to this educational activity
TB NURSE CASE MANAGEMENT
SAN ANTONIO, TEXAS
MARCH 17, 2015

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What will we cover today?

- Overseas screening for TB in refugees and immigrants
- TB classifications of refugees and immigrants
- Medical care for TB after arrival in US
- Special considerations with foreign-born populations

Who is an Immigrant?

An immigrant is a foreign born resident who:

- is not a U.S. citizen
- is defined by U.S. immigration law as a person lawfully admitted for permanent residence in the U.S.
- either arrives in the U.S. with an immigrant visa issued abroad, or adjusts their status in the U.S. from temporary to permanent resident
- may be subject to a numerical cap
Who is a refugee?

A refugee is a foreign-born resident who:
- is not a United States citizen
- cannot return to his or her country of origin because of a well-founded fear of persecution due to race, religion, nationality, political opinion, or membership in a particular social group

Refugee status is generally given:
- prior to entering the United States
- by the State Department or United States Citizenship and Immigration Services (USCIS)
- to those with special humanitarian concern to U.S.

Who is an asylee?

- Asylee refers to an alien in a country or at a port of entry who is found to be unable or unwilling to return to his/her country of nationality, or to seek the protection of that country because of persecution or a well-founded fear of persecution.
- In the U.S., an asylee is eligible to adjust to lawful permanent resident status after one year of continuous presence in the country. The Department of Homeland Security handles the asylum program.
Who is a Visitor?

A visitor does not plan to reside permanently in US — students, entertainers, tourists, business visitors, athletes, ...

Who is a Non Citizen?

- Undocumented
- Student
- Visitor
- Tourist
Presidential Designation

The maximum number of refugees and the specific countries of origin that the U.S. will accept each year is set by the President (in October) and is called the “presidential designation”. It changes from year to year based on the U.S. relationship with those countries and other political and humanitarian factors.

Electronic Disease Notification (EDN)

- Electronic notification system for all refugees and immigrant TB Class arrivals
- Database for outcomes of TB Class arrivals
- Enables states to transfer records
- All states and Q-stations participate
- Housed at CDC – DGMQ
Interesting Economics

Many countries host more refugees or people fleeing their home countries – because they are one border away – or connected to that country by land.

2/3 (66%) of the world’s refugees are hosted by countries with per capita incomes of less than $2,000 while 5% are hosted by countries with per capita incomes of greater than $10,000.

Some of the reasons that determine where people resettle:

- To reunite with family
- A sponsor or religious group willing to take them in and help them adjust.
- A strong ethnic community already established in the area with schools, shops, services, and other amenities that make people feel at home.
- Good jobs, low unemployment or jobs that don’t require English proficiency.
- The climate or the type of industry in a certain area may be similar to their home country.
Opportunities for TB Screening

- Overseas Visa*
  - TB Class determination
- Domestic Refugee Health Assessment
- TB Class Follow-up
- Adjustment of Status*
- Primary care

*Mandatory exams

- The first opportunity is the overseas or “pre-departure” exam – performed by panel physicians for all immigrants prior to coming to the U.S. Providers should think TB if the pt. comes from a high prevalent TB country.
- For “Refugee” status arrivals, ensuring a Domestic Refugee Health Assessment is each state’s responsibility.
- TB Class Follow-up for those arrivals with a designated TB Class condition is also state’s responsibility.
- The Adjustment of Status exam – when temporary residents who have lived in the U.S. for a year can apply for permanent residency - is performed by a Civil Surgeon.
- And primary care visits or physicals for school or employment are another opportunity for screening.
- It’s interesting and important to know that only the overseas or pre-departure visa exam and the adjustment of status exam are mandatory.
- At the state health department level, we are responsible for maintaining a system to ensure that refugees and TB Class arrivals have appropriate TB screening – and the work is done by local public health nurses and private providers.
2007 TB Technical Instructions

Updated from the 1991 Instructions

- 2-3 times more TB cases found & treated overseas
- Less TB brought into the US
- Fewer hard to treat or drug resistant cases brought to US
- Better TB control in US immigrant and refugee groups

2007 Technical Instructions (TIs) for TB screening prior to U.S. entry

- Medical history
- Physical examination
- TST (for ages 2-14)
- CXR (for ages ≥15 and those younger with + TST)
  - Sputum smears & cultures if abnormal CXR
  - Drug susceptibility testing on positive cultures
  - Treatment for active disease
  - Identify contacts to cases of TB disease

DGMQ website: http://www.cdc.gov/ncidod/dq
Overseas Visa - Medical Screening for Entry into the United States*

“Excludable” Conditions
- Communicable diseases of public health significance
- Physical and mental disorders with associated harmful behaviors
- Psychoactive substance abuse and dependence
- Other physical or mental abnormalities, disorders, or disabilities

*Every immigrant must complete this screening.

Medical Screening Overseas

- Refugees and Immigrants
  - Intend to remain in US
  - Apply for admission to US while still overseas
  - Must undergo medical evaluation overseas before being allowed to travel to US
Medical Screening Overseas

- **Asylees and Parolees**
  - Enter US first, then apply to remain.
  - No medical evaluation required before or at time of entry.
  - Must undergo full medical exam when applying for permanent residency.

- **Temporary visitors**
  - No intent to remain in US.
  - Applied for temporary admission to US while in country of origin.
  - No medical evaluation required before or after arrival.
Medical Screening Overseas

- Performed by “panel physician” contracted by CDC.
- CDC issues Technical Instructions (TI) for panel physicians.
- Focuses on communicable diseases, substance abuse and mental issues.
- If found to have active infectious TB, person cannot travel to US until no longer infectious.
- (This applies to refugees and immigrants only.)

Panel Physician

- A licensed and experienced doctor based outside US who is appointed by the local U.S. Embassy or Consulate.
**BCG**

- Used in countries with high TB rates
- Given to infants to protect from TB meningitis and disseminated TB
- Does NOT prevent TB completely
- Disregard history of BCG when evaluating TST results
- IGRA results not affected by BCG

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**Domestic TB Screening**

- Refugees – within 90 days of arrival
- TB Class – within 30 days of arrival
- Change of status – one year after arrival
- Other
  - Employment
  - School
  - General physical
**TB Classifications – 2007 TIs**

<table>
<thead>
<tr>
<th>Class</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Class A TB</strong></td>
<td>active TB disease, sputum smear and/or culture positive; requires a waiver (i.e., on treatment and smear negative prior to travel).</td>
</tr>
<tr>
<td><strong>Class B1</strong></td>
<td>evidence of pulmonary or extra-pulmonary TB disease, sputum smear-negative; includes &quot;old healed TB&quot;, and previously treated TB.</td>
</tr>
<tr>
<td><strong>Class B2</strong></td>
<td>LTBI (TST &gt; 10 mm)</td>
</tr>
<tr>
<td><strong>Class B3</strong></td>
<td>contact to a confirmed TB case</td>
</tr>
</tbody>
</table>

**Medical Care - TB Classifications (A, B1, B2, B3) – After Arrival**

- CDC notifies state of all immigrants arriving with TB classification
- Texas DSHS notifies TB program where immigrant lives (Local Health Department)
- Local TB program evaluates immigrant.
Medical Care after Arrival in US  
**Initial Health Screening**

- Refugees and asylees are offered an optional medical screening exam within 90 days of arrival (refugees) or grant of status (asylees)

- This optional exam includes TST or IGRA and a symptom screen regardless of overseas CXR results

- Immigrants are not eligible for this initial medical screening

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Medical Care After Arrival in US  
**Initial Health Screening**

- If TST $\geq 10$ mm or IGRA positive, refugee must undergo repeat CXR and full evaluation to R/O TB regardless of overseas CXR results.

- Refugees arriving with TB classification (A, B1, B2, B3) must undergo evaluation for TB/LTBI, including CXR, regardless of TST/IGRA results.
Medical Care after Arrival to US
Adjustment of Status

- Refugees apply for permanent residence after one year in US; immigrants/asylees can choose when to apply.

- Immigrants and asylees must undergo a full exam by a “civil surgeon”.

- Refugees only need certification of immunizations – can get from local health department.

Health Assessment TB Evaluation Done at Health Departments:

- Medical history & symptom assessment
- Physical examination
- TST and/or IGRA
- **Chest x-ray**
  - TST or IGRA is positive, or
  - TB Class A or B1
  - Symptoms of TB disease
- **Additional Tests: sputum cultures and others IF chest x-ray and symptoms suggest TB**
Civil Surgeon

- is a doctor, selected by the USCIS to conduct medical examinations of aliens in the United States who are applying for adjustment of status to permanent residence.
- Not to be confused with surgeons who have impeccable manners!

Civil Surgeon Exam

- All applicants $\geq 2$ years old must have TST or IGRA.

- Applicants $< 2$ years old with known contact to TB case or with suspected TB must have TST or IGRA.

- If applicant has TST $\geq 5$ mm, positive IGRA, TB signs or symptoms or immunosuppression, must get CXR.

- Pts. that screen positive for their TB screening are referred to the local TB health department TB clinic for further evaluation and to complete the Immigration Evaluation paperwork.
Statistics

Global
- 16 million refugees and asylum seekers
- 26 million internally displaced persons
  - ~1 million new refugees and asylum seekers each year
  - ~8.5 million refugees warehoused (most >10 years)

National
- 619,913 became naturalized U.S. citizens in 2010

References: World Refugee Survey, US Committee for Refugees, UNHCR,
The Internal Displacement Monitoring Centre, US Census Bureau,
Migration Policy Institute, and the USCIS

Trends in Tuberculosis-United States, 2010 (MMWR 3/24/11)

- Foreign born 60% TB cases, 18 cases/100,000
- TB rates for foreign born 11X higher than U.S. born
- 4 countries 50% of TB morbidity in foreign born:
  Mexico, Philippines, India, Vietnam
- Foreign born account for 90% of MDR cases in the U.S.
Trends in TB Cases in Foreign-born Persons, United States, 1989–2009*

No. of Cases Percentage

*Updated as of July 1, 2010.

Percentage of TB Cases Among Foreign-born Persons, United States*

1999 2009

*Updated as of July 1, 2010.
Countries of Birth of Foreign-born Persons Reported with TB United States, 2009

Interesting Facts

- Of those 16 million refugees, more than one million became “new” refugees in 2010, and 8.5 million refugees have been “warehoused” or living in refugee camps, most for 10 years or more.

- Refugee camps are meant to provide temporary shelter for people fleeing from the most desperate situations – they are not constructed or equipped for long-term housing.

- There are over 40 million immigrants living in the U.S. – about million have arrived each year for the past several years – a person’s immigration status determines what rights a person has - including access to health and social service programs.

- The U.S. receives more immigrants than refugees each year.
## Principal Sources of Refugees

1. Palestine 3,231,100  
2. Afghanistan 2,828,400  
3. Iraq 1,926,500  
4. Myanmar (Burma) 807,400  
5. Somalia 577,500  
6. Sudan 428,600  
7. Colombia 399,300  
8. Congo-Kinshasa 385,800  
9. Vietnam 322,300  
10. Burundi 286,200

World Refugee Survey 2009, US Committee for Refugees and Immigrants

## 2009 Main Countries of Refugee Resettlement

<table>
<thead>
<tr>
<th>Country</th>
<th>Resettled</th>
<th>Per Capita</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>60,191</td>
<td>1:5,100</td>
</tr>
<tr>
<td>Canada</td>
<td>10,804</td>
<td>1:3,000</td>
</tr>
<tr>
<td>Australia</td>
<td>8,742</td>
<td>1:2,400</td>
</tr>
<tr>
<td>Sweden</td>
<td>2,209</td>
<td>1:4,200</td>
</tr>
<tr>
<td>Norway</td>
<td>910</td>
<td>1:5,300</td>
</tr>
<tr>
<td>New Zealand</td>
<td>750</td>
<td>1:5,700</td>
</tr>
<tr>
<td>Finland</td>
<td>749</td>
<td>1:7,100</td>
</tr>
<tr>
<td>UK</td>
<td>709</td>
<td>1:86,500</td>
</tr>
<tr>
<td>Netherlands</td>
<td>544</td>
<td>1:39,500</td>
</tr>
<tr>
<td>Denmark</td>
<td>373</td>
<td>1:14,700</td>
</tr>
</tbody>
</table>

N=86,460
### Top Ten Countries - Foreign Born Population Among U.S. Immigrants

<table>
<thead>
<tr>
<th>Country</th>
<th>per year</th>
<th>2000</th>
<th>2010</th>
<th>2010, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mexico</td>
<td>175,900</td>
<td>7,841,000</td>
<td>9,600,000</td>
<td>23.7%</td>
</tr>
<tr>
<td>China</td>
<td>50,900</td>
<td>1,391,000</td>
<td>1,900,000</td>
<td>4.7%</td>
</tr>
<tr>
<td>Philippines</td>
<td>47,800</td>
<td>1,222,000</td>
<td>1,700,000</td>
<td>4.2%</td>
</tr>
<tr>
<td>India</td>
<td>59,300</td>
<td>1,007,000</td>
<td>1,610,000</td>
<td>4.0%</td>
</tr>
<tr>
<td>Vietnam</td>
<td>33,700</td>
<td>863,000</td>
<td>1,200,000</td>
<td>3.0%</td>
</tr>
<tr>
<td>Cuba</td>
<td>14,800</td>
<td>952,000</td>
<td>1,100,000</td>
<td>2.7%</td>
</tr>
<tr>
<td>El Salvador</td>
<td>33,500</td>
<td>765,000</td>
<td>1,100,000</td>
<td>2.7%</td>
</tr>
<tr>
<td>Dominican Republic</td>
<td>24,900</td>
<td>692,000</td>
<td>941,000</td>
<td>2.3%</td>
</tr>
<tr>
<td>Canada</td>
<td>24,200</td>
<td>678,000</td>
<td>920,000</td>
<td>2.3%</td>
</tr>
<tr>
<td>Korea</td>
<td>17,900</td>
<td>701,000</td>
<td>880,000</td>
<td>2.2%</td>
</tr>
<tr>
<td><strong>Total Pop. Top 10</strong></td>
<td>498,900</td>
<td>16,112,000</td>
<td>21,741,000</td>
<td>53.7%</td>
</tr>
<tr>
<td><strong>Total Foreign Born</strong></td>
<td>940,000</td>
<td>31,100,000</td>
<td>40,000,000</td>
<td>100%</td>
</tr>
</tbody>
</table>

### Heartland States Percent Foreign Born Residents—2010

<table>
<thead>
<tr>
<th>State</th>
<th>Total population Estimate</th>
<th>Foreign-born population Estimate</th>
<th>Percent</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>307,495,716</td>
<td>39,933,343</td>
<td>13.0%</td>
<td>7</td>
</tr>
<tr>
<td>Texas</td>
<td>25,257,114</td>
<td>4,142,031</td>
<td>16.4%</td>
<td>7</td>
</tr>
<tr>
<td>Illinois</td>
<td>12,843,166</td>
<td>1,759,859</td>
<td>13.7%</td>
<td>10</td>
</tr>
<tr>
<td>Arizona</td>
<td>6,413,737</td>
<td>856,663</td>
<td>13.4%</td>
<td>13</td>
</tr>
<tr>
<td>New Mexico</td>
<td>2,065,932</td>
<td>205,141</td>
<td>9.9%</td>
<td>17</td>
</tr>
<tr>
<td>Minnesota</td>
<td>5,310,584</td>
<td>378,483</td>
<td>7.1%</td>
<td>24</td>
</tr>
<tr>
<td>Kansas</td>
<td>2,859,169</td>
<td>186,942</td>
<td>6.5%</td>
<td>26</td>
</tr>
<tr>
<td>Nebraska</td>
<td>1,830,429</td>
<td>112,178</td>
<td>6.1%</td>
<td>27</td>
</tr>
<tr>
<td>Oklahoma</td>
<td>3,761,702</td>
<td>206,382</td>
<td>5.5%</td>
<td>31</td>
</tr>
<tr>
<td>Iowa</td>
<td>3,049,883</td>
<td>139,477</td>
<td>4.6%</td>
<td>35</td>
</tr>
<tr>
<td>Wisconsin</td>
<td>5,691,047</td>
<td>254,920</td>
<td>4.5%</td>
<td>38</td>
</tr>
<tr>
<td>Missouri</td>
<td>5,996,231</td>
<td>232,537</td>
<td>3.9%</td>
<td>41</td>
</tr>
<tr>
<td>South Dakota</td>
<td>816,463</td>
<td>22,238</td>
<td>2.7%</td>
<td>47</td>
</tr>
<tr>
<td>North Dakota</td>
<td>674,499</td>
<td>16,639</td>
<td>2.5%</td>
<td>48</td>
</tr>
</tbody>
</table>
## Top U.S. States for Refugee* Resettlement

**FY 2009**

<table>
<thead>
<tr>
<th>Rank</th>
<th>State</th>
<th>Arrivals</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>California</td>
<td>11,278</td>
</tr>
<tr>
<td>2.</td>
<td>Texas</td>
<td>8,212</td>
</tr>
<tr>
<td>3.</td>
<td>New York</td>
<td>4,412</td>
</tr>
<tr>
<td>4.</td>
<td>Arizona</td>
<td>4,320</td>
</tr>
<tr>
<td>5.</td>
<td>Florida</td>
<td>4,193</td>
</tr>
<tr>
<td>6.</td>
<td>Michigan</td>
<td>3,500</td>
</tr>
<tr>
<td>7.</td>
<td>Georgia</td>
<td>3,272</td>
</tr>
<tr>
<td>8.</td>
<td>Washington</td>
<td>2,581</td>
</tr>
<tr>
<td>9.</td>
<td>Illinois</td>
<td>2,561</td>
</tr>
<tr>
<td>10.</td>
<td>North Carolina</td>
<td>2,247</td>
</tr>
</tbody>
</table>

* Numbers include Amerasian, Asylees (Derivatives), Entrants/Parolees and Primary Refugee arrivals

Source: U.S. Office of Refugee Resettlement

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## High risk groups for TB

- Foreign-born
- HIV-infected
- Homeless
- Incarceration
- Certain medical conditions
- Congregate Facility Resident
- Substance abuse
Highest Risk Factor for TB

Being born in a country with a high prevalence of TB is the highest risk factor for TB in the United States.

TB Facts

- Our refugees and immigrants are coming from countries where TB is common.
- In 2007 a global target (set in 1991) of successfully treating 85% of TB cases was reached.
- In 2009, worldwide there were approximately 9.5 million incident (new) cases of TB, and 2 million deaths from TB (1/3 among HIV-positive people).
- In 2010, the CDC estimates that at least 60% of our cases of TB in the U.S. are foreign born.
TB Facts

- Reductions in disease burden follow 15 yrs of intensive efforts at global, regional, and county levels to implement DOTS strategy and Stop TB.
- Between 1995 and 2008, 36 million were successfully treated in DOTS and up to 8 million deaths prevented.
- Burden of TB is disproportionate in resource poor countries. In 2009, 410 per 100,000 in these poor countries when compared to 180 per 100,000 in lower middle income, 73 per 100,000 in upper middle income, and 8 per 100,000 in high income countries.

Characteristics of TB in Foreign-born Persons

- Extrapulmonary disease
- BCG
- Drug resistance
- Role of IGRAs
Extrapulmonary TB disease

- More common in foreign-born persons
- Wide range of anatomical sites
- Lack of awareness among some medical providers
- Lack of awareness among some patients
- Diagnostic challenge
- Increased cost of diagnostic procedures (i.e. expensive CT)

References

- CDC Medical Examination of Immigrants & Refugees: www.cdc.gov/immigrantrefugeehealth/exams/medical-examination.html
- US Department of State: travel.state.gov/
References

Heartland National TB Center
www.heartlandntbc.org

CDC DGMQ
www.cdc.gov/ncidod/dq

Office of Refugee Resettlement
www.acf.hhs.gov/programs/orr

The World Refugee Survey
www.refugees.org

Migration Policy Institute
www.migrationinformation.org

MDH TB Program
www.health.state.mn.us/tb

MDH Refugee Health Program
www.health.state.mn.us/refugee

ECHO TV
www.echominnesota.org

Southeastern National TB Center
http://sntc.medicine.ufl.edu/Products.aspx

uslegal.com

Acknowledgements

- Carolyn Fruthaler, MD
- Robert Petrossian
- Marge Higgins, L.S.W.
TB in Refugees & Immigrants
Social & Cultural Barriers

DELPHINA SÁNCHEZ, MA
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Training Specialist II

TB Nurse Case Management
March 17-19, 2015

Objective

• Discuss the barriers and special considerations in dealing with refugees and immigrants.
Special Considerations for Foreign-born Persons with TB

- TB treatment requires resources
- Education for providers & patients
- TB is one of many health issues
- Cultural competence

TB treatment requires resources

- Time and resources from providers & patients needed to ensure treatment completion
- Local Public Health, families, community leaders and others may be involved
- Qualified interpreters
- Transportation
- TB patients need stable housing and good nutrition
- Treatment is long
- DOT is standard of care for TB
- Monthly monitoring for TB infection
Patient Education

- Various levels of understanding TB disease & TB infection
  - TB is complex
- TB treatment is time and resource intensive
- Preparation and acceptance of treatment regimen for TB disease or TB infection
- Positive attitude toward treatment
- Language and cultural challenges
  - Understanding
  - Trust
  - Stigma

TB is one of many health issues affecting refugees and immigrants

Some diseases and treatments impact TB treatment.
- Hypertension
- Diabetes
- Post-traumatic stress disorder
- Depression
- Intestinal parasites
- Hepatitis

... health is just one of many life issues affecting them.
Cultural Competence

"Cultural Competency is the ability of individuals and systems to respond respectfully and effectively to people of all cultures, classes, races, ethnic backgrounds and religions in a manner that recognizes, affirms, and values the cultural differences and similarities and the worth of individuals, families, and communities and protects and preserves the dignity of each."

Source: Seattle King County Dept. of Public Health

Cultural Exercise
Culture

- Determines how people view the cause of their illness
- Determines how people recognize, label and treat illness
- Is a factor in the type of illness that people develop
- Determines the type of healer that is needed
- Is dynamic – it can change

Culture, Stigma & Understanding TB

“If I ever got it, I would not want to live. I would rather die. I wouldn’t be able to take care of my family. I would not be a strong person anymore.”

- middle-aged man, no TB history

“I don’t read or write and I’m old so I don’t think anything [TB information] will help. Plus, I still don’t think this is a real disease so it doesn’t matter to me.”

- elderly Hmong woman, active TB disease

From TB in Their Own Words: Findings from an Ethnographic Study
Cultural Differences & Human Nature

- Avoid the “other”
- Convert the “other”
- Destroy the “other”

_Overcome by:_
- Awareness & Understanding
- Collaboration & Cooperation
- Achieving goals together
- Being willing to step outside your comfort zone

Resources

Heartland National TB Center  
[www.heartlandntbc.org](http://www.heartlandntbc.org)

CDC DGMQ  
[www.cdc.gov/ncidod/dq](http://www.cdc.gov/ncidod/dq)

Office of Refugee Resettlement  
[www.acf.hhs.gov/programs/orr](http://www.acf.hhs.gov/programs/orr)

The World Refugee Survey  
[www.refugees.org](http://www.refugees.org)

Migration Policy Institute  
[www.migrationinformation.org](http://www.migrationinformation.org)

MDH Refugee Health Program  
[www.health.state.mn.us/refugee](http://www.health.state.mn.us/refugee)

ECHO TV  
[www.echominnesota.org](http://www.echominnesota.org)

Southeastern National TB Center  
[http://sntc.medicine.ufl.edu/Products.aspx](http://sntc.medicine.ufl.edu/Products.aspx)
Based on a presentation developed by Marge Higgins, L.S.W.

Questions?